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EX PARTE OR LATE FILED

January 30, 1997

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VIA COURIER

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: Notice of *Ex Parte* Presentation Regarding The Establishment of Rules and Policies for Digital Audio Radio Satellite Services, IB Docket No. 95-91; GEN Docket 90-357

Dear Mr. Caton:

Pursuant to Section 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206 (1996), on behalf of the Consumer Electronics Manufacturers Association ("CEMA"), an original and two copies of this letter are provided to advise the Commission that on January 29, 1997, in connection with the above captioned proceeding regarding proposed rules governing Digital Audio Radio ("DAR") Satellite Services, Gary Shapiro, President CEMA; Gary Klein, Vice President Government and Legal Affairs, CEMA; Ralph Justice, Director Engineering, CEMA; and its Regulatory Counsel in this matter, Ms. Catherine Wang of this Firm, met with Julius Genachowski, Chief Counsel to Chairman Reed Hundt; Rudolfo Baca, Senior Legal Advisor to Commissioner Quello; Jane Mago, Senior Legal Advisor to Commissioner Chong; and Commissioner Susan Ness and her Legal Advisor, David Siddall, to discuss CEMA's testing of DARs systems and other issues related to matters raised during the course of this proceeding. Copies of documents distributed during the course of these meetings are attached.

No. of Copies rec'd 0+1
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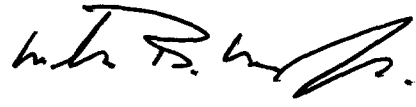
Any questions regarding this notice should be addressed to the undersigned.

Very truly yours,



William B. Wilhelm, Jr.

Counsel for the Consumer Electronics Manufacturers Association

Enclosure

cc: Commissioner, Susan Ness
Rudolfo M. Baca
Julius Genachowski
Jane Mango
David Siddall
Gary Shapiro
Gary Klein
Joe Peck
Ralph Justice
Catherine Wang

THE CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION
VISION FOR DIGITAL AUDIO RADIO SERVICES

BACKGROUND: After almost 10 years of review, the Federal Communications Commission has endorsed the introduction of digital audio radio ("DAR") service so that American consumers can enjoy seamless, nationwide, CD quality sound over the radio.

The FCC is currently considering the best technology for making DAR available in the United States. **CEMA has been tasked with the responsibility of providing technical expertise for evaluating DAR technologies**.

DAR will provide listeners, not only the fidelity that they have come to expect from CDs, but also with real-time ancillary data services including: weather, news, traffic, emergency and other advanced services that are not available through the use of current analog broadcasting technology. In the face of declining listenership, DAR will provide a powerful opportunity to compete with other advanced digital transmission technologies available to cable providers, Internet providers, and now, television broadcasters.

THE FCC SHOULD NOT AUCTION DAR LICENSES AT S-BAND

CEMA'S VIEW: **DAR cannot be successfully provided at S-Band or on existing frequencies using IBOC/IBAC methods. The Commission must immediately reconsider its proposal to use S-Band spectrum for purposes of providing DAR within the US.**

CEMA'S TESTS: CEMA, in conjunction with NASA, has performed extensive technical testing of multiple transmission technologies, including S-Band, L-Band, IBOC and IBAC over the course of the past few years. ***CEMA's goal was to conduct an open and impartial evaluation of these technologies*** and choose the system that will satisfy realistic performance requirements in order to ensure broad consumer acceptance and the rapid growth of DAR within the US. ***CEMA and others have continually urged the Commission to not preclude any options, including spectrum options, until the technical facts on DAR system performance were established by this testing initiative.***

S-BAND DEFICIENCIES: The FCC has allocated S-Band DAR frequencies. CEMA and FCC panel testing show, however, that the innate propagation characteristics of S-Band prove unacceptable for the provision of commercially viable DAR service. CEMA's extensive battery of testing reveals that:

- ***S-Band operations suffer from a significant and startling level of signal blockage*** by buildings and foliage. In major urban areas, S-Band system failure rate exceeded 90%. Overall system performance is unsuitable for commercial applications;

- ***Signal reacquisition times in excess of 1 second likely exceed a maximum threshold of consumer acceptance.*** The S-Band VOA/JPL system universally failed to satisfy this criteria;

- The propagation characteristic of ***S-Band frequencies will require*** hundreds, ***perhaps thousands, of "gap filling" transmitters*** for a single metropolitan market, as well as other costly remedial solutions in order to achieve seamless coverage;

- As a practical matter, S-Band DAR systems provide ***unacceptable service quality***, and as such have no likelihood for nationwide commercial acceptance. Similar conclusions were reached by the independent panel investigating the satellite DAR applicants' pioneer preference applications.

CONCURRENCE WITH PIONEER'S PREFERENCE REPORT: CEMA's findings concerning use of the S-Band are consistent with the FCC's own DAR Pioneer Preference Panel findings that the proposed DAR S-Band services would require substantial terrestrial buildout in order to be viable as a seamless service.

ADDITIONAL CEMA TEST FINDINGS

IBOC / IBAC DEFICIENCIES

- ***IBOC systems failed to meet fundamental performance criteria***, including: audio quality, non-interference, and digital coverage. Accordingly, CEMA found IBOC to be categorically unacceptable.

- ***Implementing the IBAC system tested by CEMA relies on spectrum vacancies that are not available.*** Further, coverage is limited by interference from existing stations and therefore has limited potential to be successfully implemented and cannot be recommended.

* * * *

CONCLUSION: **CEMA recommends immediate FCC consideration of other spectrum options such as L-Band *(1452-1492 MHz)*, UHF or VHF.**

THE FCC MUST LOCATE OTHER, MORE APPROPRIATE DAR SPECTRUM

Because CEMA's testing conclusively finds that S-Band is unsuitable for purposes of DAR. CEMA urges the FCC to consider use of alternative spectrum, including L-Band, UHF and VHF.

FACTORS FOR CONSIDERATION: In evaluating alternative spectrum allocations, the FCC should consider reallocation of spectrum that will provide DAR with:

- ***Superior audio quality***.;
- ***Immunity to interference;***
- ***Robust transmission and recovery characteristics***;
- Significant potential for ***ancillary data capacity*** and services;
- Substantial likelihood of meeting and ***exceeding customer expectations for DAR***.
- ***Compatibility*** with other worldwide DAR systems.

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